Introduction to the Summit Guest

Hello, everyone. Thank you once again for joining us for the Prostate Cancer Summit. Today we have Doctor Donald Abrams, author of the Integrative Oncology Book, part of the Andrew Wild series of books and many other.

He, Donald, has been. Doctor Abrams. Donald. We'll call each other whatever the previous guests said. Should I call you G or doctor G? I said, call me whatever you want, so we'll we'll just flow with it.

Doctor Abrams has been in the field for a long time out in, San Francisco. UCSF you were part of UCSF until LA. Yeah, yeah. Why? They so lucky to have you.

And today we're going to talk about cannabis, cannabinoids and prostate cancer and see what's the deal here. What you hopefully we can bring some clarity.

You are asking me questions over the internet all the time on hey, you know, marijuana and prostate cancer. Is it good is it not? Well, today we have one of the one of the experts.

Doctor Abrams, thank you so much for being on. Pleasure. All right. Where do we start? Let's start here. I guess. Cannabinoids or just cannabis? We could start with just cannabis.

And I know there's a lot of chemicals in the in the plant. Is there any benefit? And I'll ask it this way, because I think that I haven't seen any human trials and without it is very difficult to determine if it's good or bad.

So I've seen some pre-clinical trials, in vitro and even animal studies showing some benefits, some regression of some cannabinoids, exposure to cancer cells and some regression.

So the way we I guess we could take this is like this a what are your thoughts on it? Even even if there are studies that I'm not aware of for human studies as it relates to prostate cancer benefit or, or even your thoughts as yet, maybe, there are no human studies, but maybe take it in whatever direction you want.

Cannabis? Cannabinoids in prostate cancer? Go for it. But so should we start with a description or, what cannabinoids. Are? I think so, I think we I think that at times we take things for granted.

Like, of course I know what I can, I wouldn't, but the answer is that we may not, and certainly the audience may not. So why don't you take that back and. Yeah, let's start there.

What Cannabis and Cannabinoids Are

Well, cannabis sativa is a plant that's been around for thousands of years, has many medicinal benefits in, people, and people have been using it for thousands of years.

We know that from archeological and anthropological studies. So the plant itself, cannabis, has over 450 chemical compounds and 120 of those or so-called cannabinoids.

There are 21 carbon terpenes, phenolic compounds, that have biological activity. In addition, the flavonoids and the beans in the plant also have activity.

The terpenes give each strain of cannabis, their unique smell. So there's, liming and immersing and pining, and they all, you know, provide the odor that people recognize sometimes as skunk.

So the cannabinoids, the most famous of the cannabinoids used to be delta nine tetrahydrocannabinol, or THC,

because that's what gets people high lately, over the past decades or so, cannabidiol, or CBD, has jumped to the top of the most favorite cannabinoid list because it's supposedly is not psychoactive.

CBD, I think, is present in the plant to downplay the effects of THC. So in addition, I think, CBD in current cannabis preparations that people are, purchasing is decreasing and downplaying the potential benefits of the THC.

Personally, I believe the plant is the medicine. It's interesting to look at the isolated cannabinoids, but I don't think that they're going to be as beneficial to people as the plant as in nature.

Nature bats less. Nature did it best, you know isolating these. We know for example delta nine THC has been isolated and available as a medication since 1986 for the treatment of nausea and vomiting in patients with cancer.

The indication expanded in 1992 for treatment of anorexia associated with the Aids wasting syndrome. It didn't increase weight in a placebo controlled trial.

It only increased appetite in those patients who had that Aids syndrome that no longer exists. Because we have effective treatments. Delta nine THC. However, if you get that to people, I don't know if you've ever prescribed it knocks them out.

I mean, it lacks the balance of the 450 other compounds in the plant. You know, we did a my first study was a 21 day in patients study of Aids patients either smoking marijuana taking dren abnormal which is the Delta nine THC capsule, or a placebo capsule.

And over those 21 days, the marijuana smokers were up dancing and cleaning their room in the, research center. The placebo patients were nothing going on there.

The patients taking three times a day, 2.5mg of THC spent their whole day in bed. So, you know, I'm not a big fan of isolated cannabinoids. CBN is interesting CBN is the breakdown product of all delta nine THC.

And those of us who went to college in the 60 know that if we smoked old marijuana we got knocked out and tired. And that's because CBN seems to be something useful for sleep.

So that might be an isolated cannabinoid to look at. Another one that's getting a lot of press lately is delta. And I was tetrahydrocannabinol during THC of because that it decreases appetite for food for alcohol and also for opiates.

So again if we're going to look at isolated cannabinoids, there are a few that may have some medicinal benefit. Now just to return to CBD for a second cannabidiol people say it's not psychoactive.

Well they most impressive study was 24 patients with social anxiety disorder subjected to a simulated public speaking test, and 12 of them, they got 600mg of cannabidiol and 12 got placebo.

And the patients getting 600mg of cannabidiol were less anxious. And many patients tell me that CBD is useful for sleep. So if they didn't sleep and anxiety, I don't think it's not psychoactive.

I think it doesn't get you high. And we live in a society that's euphoria phobic. We fear being high and happy, so that's why people have gravitated to CBD.

CBD is a multibillion dollar industry with very little evidence to support that. It does absolutely anything. When I check out at my supermarket, there's a whole display of CBD products there and it always makes me cringe.

So this is CBD literally isolated CBD in that that's what we see in the supermarket at the by the counter, where we are. Yeah, I see those as well. And I wonder even if there's any CBD there, but that's a different, you know, in product itself.

That's a, that's a different story for a different day. So all these chemicals, particularly in CBD, they sort of have a dance with each. They offset each other so that there's no not too much of anything.

Not too high. Not too low. Kind of keeps you sort of balance. I admit, apologetically, I've had zero exposure to cannabinoids even through college. I apologetically, because I don't know that you know of another person.

I've gone through college and I've had had exposure, so I'm literally all I know about, cannabinoids and cannabis is what I've seen, what I've smelled.

And living in the Bronx and then in college and, the research that, that exists. So, I'm a I'm, I'm a neo neophyte here. One of the ways that CBD works.

So when you, when I'm a big fan of inhalation. And you inhale that delta nine thc the peak plasma concentration is reached in 2.5 minutes. If you take it by mouth it takes 2.5 hours.

And when the delta nine THC goes through the liver, the enzyme system in the liver that metabolizes drugs changes the delta nine THC into an 11 hydroxy metabolite, which is actually more psychoactive.

And the, CBD works on that same enzyme system in the liver, sort of inhibiting it.

CBD, THC, and Delivery Methods

So it doesn't do that. And so that's why it sort of modulates the high. But as you know, that enzyme system in the liver is responsible for metabolizing many of the pharmaceuticals that we use in cancer care.

So patients taking highly concentrated oils or tinctures, especially of CBD, run the risk of making those pharmaceuticals more toxic. So so they are interactions with specifically CBD products and many pharmaceutical drug.

I think THC supposedly can do that as well. But I've done two different clinical trials. One in Aids patients taking protease inhibitors and one in patients with pain and taking opiates.

And I found no significant clinical traction between inhaled cannabis and, the, opiates or the protease inhibitors. I, I wanted to okay. Go on. Yeah. So if you have to I want to make sure that I'm getting to the conclusion of what you just said.

Correct. If you have to take it for medicinal purposes or at least that's what we're talking about here, not recreational for, for the purpose of it you is probably better inhaling than taking it.

Yeah. Yeah, that's what I was meaning to throw in next is that now we have tinctures and oils, and when you put a liquid in your mouth, you immediately absorb some from under your tongue, reproducing the kinetics of inhalation.

And you swallow the rest, reproducing the kinetics of oral ingestion. So I think for patients, probably one of the best routes is a tincture or an oil preparation of whole plant extract.

And that isolated cannabinoids that somebody threw together. So Donald you and I both know we've seen it is all over California. I've seen it in places here. The are these marijuana shops and medicinal marijuana shops everywhere now.

Right. I see it everywhere. Yeah, yeah. What can we make of this? Is this regulated? If I say, look, I have prostate cancer, and do they know what what to give me?

Is there something is it more specific than any other for any other condition? How does that work? Yeah. So, actually we have right next door here to the OSHA center, a, dispensary that closed, because California, there's so much access to medicinal and recreational cannabis that it's a, it's a tough business to stay in.

Yeah. So what do I tell my patients? My husband, Clint Werner, wrote a book many years ago called marijuana A Gateway to Health How Cannabis Protects Us From Cancer and Alzheimer's.

And when I was doing clinics from home during Covid and he was listening, he said, stop telling patients to go to the dispensary and ask the bud tender what they should take, because those people are not trained.

They don't know anything. Alana Barron at the Dana Farber did a study of bud tender education. I'm on that manuscript, and it's it's a little disconcerting.

A few years ago, I had, two pharmacists come to see me, graduates of the UCSF School of Pharmacy, who said, what would you think, if we opened a dispensary?

I said, that would be fabulous. They came back a year later and said it costs $1 million down to open a dispensary. So instead they now have sort of a cannabis concierge practice online.

So I can refer my patients to them. And they there are pharmacists. So they ask the patients what other medications are on what it is they're trying to treat, and they will recommend for them a tincture that they think would work best for them.

So, fortunate to have access to to that sort of the, you know, but most of it is trial and error. Let's recall that cannabis still is in this country.

Maybe it won't be by November. Who knows? A schedule one substance. And that means high potential for abuse and no accepted medical use. And that means to be able to study it, particularly for a therapeutic benefit.

It's virtually impossible. That's the only legal source of cannabis in this country for research up until very recently has been like the National Institute on Drug Abuse.

And neither has a congressional mandate that they can only study substances of abuse as substances of abuse. So I wanted to do a study showing the potential benefit of cannabis.

I had to use Night of Cannabis but I had to be a little tricky. So the one that I mentioned where I did cannabis versus national versus placebo, I said I wanted to see if it was safe for patients on protease inhibitors to add inhaled cannabis to their regimen.

And when I wanted to do a study of cannabinoid opioid interactions in people with pain, I had to say, I want to see if it's safe, not effective. So let's call those my Trojan horse studies.

Because I got funded by the government to do both of them, even though I was sort of looking for potential effectiveness. But this is the reason that we don't have any data in the medical literature to answer the questions that our patients are asking.

I was on the committee from the National Academies of Sciences, Engineering and Medicine in 2016 that wrote the book The Health Effects of Cannabis and Cannabinoids, reviewing 10,000 medical articles that had been published since the last time the Institute of Medicine did an update in 1999.

And in that 15 chapter book, we have one chapter on therapeutic benefit and 13 on potential harm. Because Naida spends $150 million a year supporting research into the harmful effects of marijuana, but they can't find studies looking at the benefit.

Well, if you if you focus on doing a study on a particular outcome that's, unfavorable, you're going to get more of those results, because that's the methodology that kind of goes into the study.

Yeah, yeah. And that's what the funding covers. So that's why in answer to your question, which and you know, it used to be that if you're using Night of Cannabis, it was like 3.5% THC, zero CBD.

And that's what it was. And you know, now they become more, up with the times. Mahmoud El Sula, who grows cannabis for night at the University of Mississippi, has many different preparations that are both stronger and then contain differing amounts of CBD and THC, for example.

So the last study I did in patients with sickle cell disease, we had 5% THC and 5% CBD. And what's it? Well, any, is it still ongoing? No. No. That was published that was published in the, many years ago.

You know, I'll tell you that I did a study of 3.5% THC alone, in conjunction with opiates, and my impression was that the 3.5% THC alone was more potent as an analgesic than the 5% 5% THC CBD in the patients with sickle cell disease, who were also all also on opiates.

And I think that speaks to my concern that CBD detracts from both the high as well as the therapeutic potential of THC. So maybe getting the right ratios is where we want to go with it.

And we don't know what the right ratio is. Not know what the right ratio is. And that's the problem now because you know here in California our dispensaries 1 to 1, 2 to 1, 4 to 1, 1 to 4, 8 to 10, you know, what are you going to study is.

All over the place. You're going to smoke. Ed, are you that a bong hit? Are you going to vaporize it? Are you going to put it under your tongue? What it you know, there's too many options now, I liked the 1990s, when all I could get was 3.5% for night.

Dispensaries, Regulation, and Research Limits

It made life a lot easier. Yeah, I really think it's you know, plus now they're going to change the scheduling. The recommendation is to change marijuana from schedule one to schedule three.

Marijuana is a botanical that's been around for 3000 years and is beneficial to many people. I think it should be treated like salt palmetto or echinacea and regulated like alcohol and tobacco.

And the pharmaceutical ization of marijuana by scheduling it as schedule three. I think unfortunately, in my opinion is a mistake. So that is that will that definitely happen within this year you think.

Well you know politicians. This to this president in November. Politics. I mean you know I don't know what it depends on anymore. You know, I mean you know, the government has his finger and all sorts of things that should be, you know, managed more by and physicians and medicine and science and not a lot of different.

Yeah. So if we so okay, we're going to get into prostate cancer more specifically in a second. But I think that this applies to many of the listeners, of this summit, just like I told my mom.

So the reason why I don't I never smoked pot is because from my mom, they came from Cuba in 1968. They want to be good Americans and they, like, do nothing illegal.

And marijuana is illegal and marijuana and and all these other drugs are the same thing. There's no difference. You should put the fear of God in me. I was like, oh, I don't want to touch that.

I obviously I know it's not true. And even other harder drugs and psychedelics are being studied for medicinal purposes as well. So but I told her recently, I mean, she's 80 something, 84 years old.

So look, if you have extreme pain of anything for any reason, I don't want you to opiate. I rather you smoke pot. And she was like, what? Are you kidding me?

Is like, no, no no no no no, you believe me. This is what you want to do. And she says, and so, you months later, she says, you know what? I read something and I agree with you.

I may do that if I have extreme pain. So in a situation where someone has extreme pain, I think is in a wonderful analgesic, what sort of ratio are we looking for to not get too zoned out or, you know, go to sleep?

You know, you still need to be functional, you need to go to work and things like that. What what's the right ratio of THC to CBD? So again, there's there is no answer to that question.

But I do want to digress for a moment and talk about pain, because we have in our body cannabinoid receptors. Right. The cannabinoid one receptor is actually one of the most densely populated receptors in the human brain.

And one of the advantages of zoom lectures during Covid, I can do a poll, and I would ask audiences of physicians, how many of you learned about the CB1 receptor in medical school, one of the most densely populated receptors in the human brain, and the answer was 5 to 10% of physicians learn about that in medical school.

That shows you the extent of Reefer madness. CB2 receptor was originally identified on cells of the immune system. Now, why do we, in all animal species, down to sea squirts have cannabinoid receptors?

You've never seen a monkey smoking a joint. It's because we all make our own endogenous cannabinoids like we make our own and endogenous opioids. The endorphins.

So we make endocannabinoids. Anandamide was the first identified by my dear friend and colleague Rafael McCullough. May he rest in peace. But there is anandamide in something called two AG and Michael Pollan, the Berkeley journalist who wrote the book, The Body of Desire, I think, explained it best.

He believes that the reason we have this system, cannabinoid receptors in endogenous cannabinoids is to help us to forget. And in his next book, The Omnivore's Dilemma, Michael is trying to gather his own food for a year.

And in one chapter, he's sitting in the woods with a rifle on his shoulder, waiting to kill a deer holding very still. And he said, okay, this is painful.

And then he postulates out of the blue in this chapter that the reason we in all animal species is dependent on praying, eating for our sustenance, have the system of cannabinoid receptors and endogenous cannabinoids is to help us to forget pain.

So THC complexes with the cannabinoid receptor CBD actually changes the shape of the receptor. So it can't complex with THC. Is that beneficial? I don't think so.

So the CBD for pain it doesn't play much of a role or it actually is counterproductive if it if there's THC involved or, or so my opinion. But they did do a study.

Let me just tell you this one. Yeah. Where they did an experiment was a pain model. And they gave patients CBD or placebo. And they told them it was either CBD or placebo.

So the people that were told that they got the the people who received placebo, but we're told that they got CBD, actually had as much relief of their pain as the people who got the real CBD.

So it just shows that its, sense of expectation. Is that a placebo effect? Okay, if it works, then it works. But are you going to buy it in the supermarket if it's all just placebo?

I don't think so. So for for pain, we want just THC. Well I don't, I don't know just again it's the. Ratio. Effect. It's the entourage effect of all of the compounds in the plant that are providing, I think the therapeutic benefit.

I wonder if there's a ratio and I'm pulling numbers completely out of the air, but let's just go with it. You know, 8 to 1 THC to CBD. Maybe that's the perfect, you know.

Where you know. So everybody's CB1 receptor is probably different. Yeah. You know, so it's you know,

pharmacogenomics I mean some people smoke marijuana and get totally paranoid, some people get euphoric and some people have no effect.

So go figure. I think it's, there's a lot of pharmacological elements going on here as well. So very hard. I think there's trial and error that needs to be done.

People need to try different strains varieties until they find one that works for them. In the animal models, cannabinoids are synergistic with opiates.

Cannabis, Cancer, and Prostate Cancer Evidence

And so that is one of the studies that we try to do as well, to show that there was some synergy if people added vaporized cannabis, to, long acting, morphine or long acting oxycodone.

And we did the study was only it's one of those Trojan horses that I mentioned. It was only powered for pharmacokinetics. So we only had 11 people on this drug intent on that.

But we did ask them what happened to their pain. And we did demonstrate a 25% reduction when the cannabinoid was added to the sustained release opiate.

But again, that's not power for no pain as an endpoint. Beautiful. What do we do, from a prostate cancer perspective. And let's start with the disease itself, have prostate cancer.

I can't tell you the amount of emails or YouTube comments I get asking, can I take marijuana? And and I heard and and some, you know, everybody has an anecdote.

It reversed. You know, it can reverse prostate cancer. What can you say about that? So let me just go way back to 1975, when investigators from Virginia Commonwealth University published in the Journal of the National Cancer Institute the Delta nine thc Delta eight thc and cannabinoid all all inhibited Louis lung adenocarcinoma cells in the test tube.

Interestingly, CBD didn't and led to perhaps an increase in the cancer in the test tube. Since that time. The research, looking at the anti-cancer effect of cannabis has moved across the ocean, most of it being done in Spain or Italy.

Manuel Guzman, my friend and colleague at university in Madrid, has a lab that studies the, effects of cannabinoids on metabolites, ASM, and the most highly active or metabolic cells in the body or the brain.

So they would grow up rat brain and they would add cannabis. And they said, maybe we can do our work faster if we grow up a brain tumor. So they grow up a brain tumor and added their cannabinoid preparation and everything died.

And they said, oh, we must have done something wrong. So they did it again and everything died. They said, well, maybe this is a bad batch of cannabinoids.

So they went back to the normal brain and everything lived. So since that time, the Guzman lab has demonstrated very clearly that, cannabinoids complex with the CB1 receptor on the brain tumor and cause the cells to commit suicide.

Similarly, they've demonstrated that cannabinoids block vascular endothelial growth factor or vengeance, which, you know, is the target of that. This is a mind.

And they've also demonstrated that cannabinoids inhibit something called matrix matrix metallic progenitors, which allows cancer cells to become invasive and metastasize.

So that's all lovely and very exciting. It's all in the test to many people have taken news mice who don't have an immune system and transplanted human tumors into them.

And in that situation, adding cannabinoids against many different tumor types shows decrease in the tumor. However, no studies have been done in humans that demonstrate that cannabis has any activity against any human cancers.

Again, if anything's going to have an impact, I think it's going to be in brain tumors. And Christopher Twelves in the United Kingdom, was the principal investigator of a study that looked at the big smalls versus placebo in patients with recurrent glioblastoma multiforme, the most aggressive form of brain tumor.

And the big smiles is a whole plant extract of cannabis, modulated to have a THC to CBD ratio of 1 to 1. And so he had 12 patients with recurrent brain tumor squirting and a big smiles under their tongue and nine using placebo.

So not a huge study. At six months, two thirds of both groups had recurrent brain tumors. However, in the group using the the big smalls, 82% were alive at one year, compared to 44% of the placebo group.

That was significant, but the study was not powered for survival is an endpoint. So more and more studies are being done looking at brain tumor patients receiving, you know, in the big smalls or other, cannabis based medications with regards to other cancers.

Let me just say during my era, his group in Israel, did a trial that they published where they had 12 different cell lines and 12 different cannabis preparations that they were using.

And they found that this cannabis preparation inhibited prostate cancer cells in this cell line, but not the cell line. So, you know, that to me is sort of a red flag that, you know, we can't really say that cannabis is going to be effective against cancer.

And, you know, I always say, I've been an oncologist in San Francisco now for 41 years. I guess that the majority of patients that I see have used cannabis.

If cannabis cured cancer, I'd have a lot more survivors. So I'm a big fan of cannabis for symptom management, but I don't really think it does anything for cancer itself.

Including prostate cancer. Well, yeah, prostate especially. It may be glioblastoma at some point if we can do a study maybe. I mean so there is that a they I'm looking at this study that the cannabinoids in prostate cancer assisted review of animal studies.

And this was published in 2020. And they found six different studies and in the animal model of prostate cancer where cannabinoids seem to decrease the size of the tumor.

And then here's one on CBD, my favorite inhibits the proliferation and invasiveness of prostate cancer cells in the test tube. I really like Asra raises, but the first cell she is a, a hematologic oncologist in New York who just doesn't believe in preclinical studies giving much information in the development of cancer therapies, claiming that only 4% of things that are originally developed in the test tube or in animal models translate into effective anti-cancer drugs.

As an old Aids doctor, in the past, I used to tell my patients gasoline in some sense inhibit the virus in the test tube, but I would never recommend either one of those as a treatment for HIV.

So what happens in the test tube, unfortunately, does not always translate into what happens. And what happens in the test tube stays in a test tube. Something like that.

But with regards to prostate cancer, here's a paper from Toronto, the Canadian Urological Association. They looked at 2222 men undergoing androgen deprivation.

23% of those surveyed said that they had used cannabis. And they were tricky because they drew blood and look for evidence of cannabis in the blood that was only present in 5.8% of the men, 23 is about the average.

In all the studies that are frequently being published on cancer patients, the percent that are using cannabis in some studies of breast cancer, it's up to 50%.

But, you know, it really depends on the location. And, the group that's doing the study. But I'd say, you know, somewhere between a quarter and one and a half of all cancer patients in are using cannabis, probably slightly greater in my practice, because patients know that's one of my areas of of interest.

I think a more important question is, does cannabis cause cancer? And we review that data from the National Academies of Science, engineering and Medicine, group that wrote the book.

And we concluded that there was no evidence that cannabis increased the risk of lung or head neck cancers, which are both increase in cigaret smokers.

We saw a statistical association between cannabis use and increased risk of testicular cancer. So did all. The while we were meeting, we had a presentation, a live in person presentation from a guy from the National driving Safety and Transportation Committee, whatever that's called.

And he was asked, are there increased traffic accidents in states where cannabis is recreationally legal? And he said, yes, but if you make an a statistical adjustment, that increase disappears.

He says, who gets cannabis? Who who smokes cannabis? Young men. Who gets automobile accidents? Young men. So if you adjust for that, it disappears. Similarly, who smokes cannabis?

Young men? Who gets testicular cancer? Young men. So the association is a statistical association and does not imply causation. It's like we see increased drowning deaths in months where ice cream is over consumed.

True, true and unrelated. Right? Recently there was a nice article, coming from the UK looking at their biobank association between cannabis use with urological cancers.

And interestingly, they found looking at 150,000 people, that those who had significant prior use of cannabis had decreased risk of kidney cancer, decreased 40% as well as prostate cancer decreased 18%.

And in this article, they say that they saw no association between cannabis use and testicular cancer, largely because they didn't have very many cases of testicular cancer.

Right? Not that common to begin with.

Sleep, Pain, and Symptom Relief in Prostate Cancer

And I'm wondering, in the prostate cancer, because, it doesn't really matter if you get prostate cancer or not, because if you have a prostate and live long enough, you'll get it.

I'm wondering how aggressive it was and staging and things like that. Which I. Yeah. That's not there. Yeah, yeah. All right. So all right. So no direct benefit, no regression of prostate cancer is from the, consumption of marijuana or cannabis.

And people so much. That we that we know. Yeah, yeah. So in in cases so in my protocol there, I have four prongs in my lifestyle protocol. One is diet exercise, all very prescriptive sleep and certain nutraceutical supplements.

I want them to sleep. Yeah okay. Can cannabis or marijuana help people sleep. Not only fall asleep but get good quality of sleep where they go through all their stages of sleep, including, REM sleep and feel good, unlike alcohol, for example.

Right. Which helps you go to sleep. But you don't wake up refreshed. What's the story with cannabis and sleep? Yeah, I'm not a sleep expert, but we did note in our chapter on therapeutics from nest, the National Academies, that cannabis did seem to have, moderate benefit in sleep and that largely those came from studies of that and the big smiles under the tongue spray, 1 to 1 whole plant extract product.

But, I mean, any of us that did go to college in the 60s know that cannabis is useful for sleep. And many of my patients benefit from cannabis, even isolated CBD products for sleep.

Is it placebo effect? I don't know, is it REM versus non-REM? I'm not a sleep psychologist or whatever, physiologists, whatever they're called. But, you know, I think people do benefit.

I mean, I hear it all the time that since people started using cannabis, they sleep much better. Some people, just like with melatonin, do feel groggy in the morning and a little bit hungover.

But again, it's a it's a trial and error and searching for the right preparation. When I say smoking, by the way, I like a bong, and a vaporizer. And when I say a vaporizer, I'm not talking about a vape pen.

I don't college's, hence a little bit conservative. And I know the long term effects of inhaling a botanical, but I don't know the long term effects of inhaling an oil.

So I'm not a big fan of vape pens as an a delivery system. But I think your question about sleep. So sleep anxiety, we see that in prostate cancer men, depression, loss of appetite.

We don't have to deal with so much with ADT because that seems to increase appetite. But nausea is the men are getting their dose attacks on I think cannabis is a very useful, antiemetics.

And doesn't have the constipated effect of ondansetron, which is most widely prescribed. So I find cannabis to be very useful for symptom management in patients with prostate as well as other cancers.

Beautiful. So maybe for sleep. I still would like to know at some. Maybe there's some research out there looking to. Because what I try to help my patients, not only getting sleep, even eight hours of sleep is getting the best quality sleep.

The I don't care how you get the best quality of sleep, whether it's 5 hours or 8 hours. I just want you to get really good quality sleep. So quality more than quantity in my mind anyway.

Particularly I'm in New York and no one sleeps eight hours a night in New York. So therefore. And that the traffic noise. Excessive traffic noise and just, a personalities, I assume, ask. Recently discovered magnesium three and eight.

Yeah. And I take, you know, capsules of that before I go to sleep, but yeah, I. Take I take two of them. I don't need, melatonin. And anymore. It's very, you know, it works really well.

This other botanicals that seem to work well or just or just, Mac three and a mac three, and it works very well. Mac likes you. Made me work well, too.

The reason I say that is because Mac three on A is like double the cost of Mac. Magnesium glycine eight. So. Yeah, my little brother had terrible, cramps, and they put them on magnesium glycine, and they're totally gone. So.

But yeah, that's how I learned about magnesium three and eight. One of my mentees told me a patient asked if she should take that for sleep. I said, why would she take something so expensive?

And then I was going through my my market, and I saw it right there. And I said, man, I'll try it. You know, I can afford the 20 bucks, whatever it is.

And it was. More than that. Probably it was I like it, it's. Yeah, it works well, magnesium. I got good dreams too. I'm reading a book now called The Spirituality of Dreaming.

Whoa. A pretty good book. But, Whoa. You know, I like that. The spirituality of dreaming. That sounds amazing. It's a good one. Yeah. The other element of, prostate cancer is that sometimes prostate cancer metastasizes to the bone and there's pain.

Yeah. Know we're. We spoke about pain, so maybe there's insomnia from the pain. Maybe this just pain as well. Cannabis. Marijuana and that scenario, I would say, look, I would say take that before almost any other pharmaceutical drug, if you can.

So what's your take on that. And say, say that my patients have nausea, vomiting, anxiety, depression, insomnia. I could write prescriptions for five different pharmaceuticals that all might interact with each other or with the cancer treatment that my patients are getting.

Or I could recommend one safe botanical. Right. And you mentioned alcohol before. I mean I've been a physician now for I don't know, 45 years. And the number of patients I've admitted to the hospital with complications of cannabis is one.

During my internship 100 years ago, cannabis was laced with PCP. The number of patients I've admitted to the hospital working at San Francisco General Safety Net Hospital on the internal medicine service with complications of alcohol is in there.

I know alcoholism mainstreamed in our society and cannabis is so demonized and it's so much safer. Yeah, yeah, I couldn't agree with you more. Again, I drank, I still do every now and then and never smoke cannabis.

And I know bias. I agree with you 100%. So I think we have I think, I think it's safe to say, well, as far as it relates to, you know, regression of cancer, we don't know.

And may be unlikely. It's hard to say because there's no there's no trials on it. Right. Then somebody could do a study. I, I retired, emeritus. Somebody could do a study of men with prostate cancer treated rising PSA.

Right. And randomized them to cannabis versus not cannabis and see if it makes a difference. Randomizing is hard because they have access to it everywhere.

Right. So you don't know you can't I don't know that you can trust a control group a whole lot. Right. Or yeah. You know, placebo cannabis. Yeah. Right. Exactly. Yeah.

But for instance, you know, in patients with insomnia and pain, bone pain from prostate cancer, I think is a good thing. And you're saying oils or inhaling it is probably a better approach than just taking cookies or things like that.

Oh, I. Mean, I'm a big anti sugar person. I think sugar feeds cancer. So my patients who do edibles and the very very popular gummies I say they're all sugar.

Stop them. Yeah I mean if there's another oral form. But again you know I see so many particularly older women, they don't have prostate cancer, but they go to the dispensary, they're told only eat a quarter of the cookie.

They do and nothing happens. So they add another quarter and nothing happens. So they eat the whole cookie because it takes 2.5 hours for the concentration.

Yeah. Then they call me three days later saying they're never going to do that again. After an egotistic effect and perhaps a visit to the emergency room.

So I think if you want better control over the onset, the depth and the duration and the effect in inhalation is better than oral ingestion. But again, I favor tinctures and oils, as you know, sort of a combined pharmacokinetic hybrid of

the inhalation effect from sublingual absorption and then swallowing gives you the oral effect.

I love it, love it. Doctor Donald Abrams always bringing the goods even after 45 years in practice. And I'm not going to disclose your age before we started recording.

But man, I look up to you. If I can be doing what you're doing even half as much. When I'm your age, I would be a very happy person. Thanks for being on this summit. A pleasure.

How can final words of any. And how can people find you or get in touch with you or your work? Well, again, I did retire, so. But, if they Google Abrams, OSHA, OSHA, I'm still working two mornings a week here at the UCSF OSHA center for Integrative Health.

Right there. So lucky to have you. Thank you. Thank you, Donald, so much. Thank you everyone for watching yet another great episode of this Prostate Cancer Summit.

And stay tuned for the next episode. And the next guest. Much love and I'll see you next time. Thank you.